



36. (New) A device according to claim 28,

wherein the EL element comprises a luminescent layer comprising a polymer organic material.

REMARKS

Applicant will address each of the Examiner's rejections as they appear in the Office Action.

Claim Rejections - 35 USC §103

The Examiner rejects Claims 1-3 and 5-11 under 35 USC §103 as being unpatentable over Yamada et al. in view of Todokoro et al. This rejection is respectfully traversed.

The present invention, as claimed in independent Claims 1 and 9, is directed to an EL display device formed by a semiconductor element wherein the EL display device includes a correcting means for gamma (γ)-correcting the analog image signal. As explained in the specification, see e.g. page 4, such a structure is advantageous for displaying an image of a desired RGB balance by making the gamma (γ)-correction to, for example, a video signal to adjust the luminescent brightness of RGB. Such a device is not disclosed or suggested by the cited references.

As the Examiner admits, Yamada does not disclose or suggest a correcting means for gamma correcting the analog image signal.¹ The Examiner, however, cites Todokoro and alleges that it has a memory that is "a correction gamma for driving conditions of the individual surface of the electron beam." Applicant disagrees. Todokoro states that it is directed to an image display apparatus which

¹ Applicant believes that the first mention in the Office Action at page 2 of a memory for storing the data correcting and col. 8, lns. 24-25 must refer to Todokoro and not Yamada. This is especially true since the Examiner admits Yamada does not disclosure a correcting means and no such reference appears at col. 8, lns. 24-25 of Yamada.

includes a correction means. Applicant does not believe that this is a correction means for gamma correction, as recited in the claims of the present application.²

In addition, Claim 8 of the present application requires the EL element includes a luminescent layer comprising a *polymer* organic material. The Examiner alleges that Yamada discloses such a limitation and cites col. 11, lns. 8-13 in support thereof. However, col. 11, lns. 8-13 of Yamada merely recites “organic EL elements” and does not mention polymer organic material.

Accordingly, since neither reference individually or combined discloses or suggests the claimed invention, it is respectfully requested that this rejection now be withdrawn.

The Examiner further rejects Claim 4 under 35 USC §103 as being unpatentable over Yamada et al. in view of Todokoro et al. and in view of Sunohara et al. This rejection is also traversed.

Claim 4 is dependent on independent Claim 1. Hence, for at least the same reasons discussed above, dependent Claim 4 is also patentable over the cited references.

Further, Applicant believes that Sunohara is not relevant to the present invention. The present invention is directed to a self-luminous EL display device while Sunohara is directed to a reflective direct-view type display device (see Abstract).

Accordingly, it is respectfully requested that this rejection also be withdrawn.

Amendments to Claims

Applicant has made minor amendments to the claims to put them in a better form. Such amendments are not believed to be narrowing amendments.

² The undersigned did an electronic search of the reference and could find no recitation of the word “gamma” in the reference.

New Claims

Applicant is adding new Claims 12-36 herewith. These claims are believed to be allowable over the cited references for at least the reasons discussed above.

The fee for new claims has been calculated as shown below.

	Claims Remaining After Amendment		Highest Number Previously Paid For	Present Extra	Rate	Fee
Total	36	-	20	16	(small entity) x 9 (others) x 18	\$288.00
Independent	4	-	3	1	(small entity) x 42 (others) x 84	\$84.00
Multiple Dependent	No				(small entity) + 140 (others) + 280	\$0.00
TOTAL ADDITIONAL FEES						\$372.00

Applicant is enclosing the \$372.00 fee for the new claims and new independent claims. If any further fee is due, please charge our deposit account 50/1039.

IDS

The undersigned is preparing an IDS and will submit it as soon as he receives the references. It is respectfully requested that the Examiner consider each of the references cited therein before issuing a further action on this application.

Applicant also notes that while the Examiner states that the Examiner considered the IDS filed September 20, 2000, a marked-up 1449 form is not included with the Office Action. Applicant requests that such a marked form be included with the next action.

Conclusion

For at least the above-stated reasons, the present application is in a condition for allowance. Accordingly, it is respectfully requested that it now be allowed.

If any fee should be due for this amendment, please charge our deposit account 50/1039.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,



Mark J. Murphy
Registration No. 34,225

COOK, ALEX, McFARRON, MANZO,
CUMMINGS & MEHLER, Ltd.
200 West Adams Street, Suite 2850
Chicago, Illinois 60606
(312) 236-8500

Marked-up copy of the claims as amended herein:

IN THE CLAIMS:

Please amend the claims as follows:

4. (Amended) A device according to claim 1,

wherein the EL element [includes] comprises,

a first pixel [including] comprising a blue luminescent layer,

a second pixel [including] comprising a green luminescent layer, and

a third pixel [including] comprising a red luminescent layer.

8. (Amended) A device according to claim 1,

wherein the EL element [includes] comprises a luminescent layer comprising a polymer organic material.

11. (Amended) [The] An EL display device of claim 9, wherein the EL display device is used in an electronic device selected form the group consisting of an EL display, a video camera, a head mount type display, an image reproduction device comprising a recording medium, a portable computer, a personal computer, a portable telephone and a car audio equipment.

Please add the following new claims:

12. (New) A device according to claim 9, further comprising:

a color filter being formed at a position corresponding to the pixel electrode.

13. (New) A device according to claim 9,

wherein the EL element comprises,

a first pixel comprising a blue luminescent layer,

a second pixel comprising a green luminescent layer, and

a third pixel comprising a red luminescent layer.

14. (New) A device according to claim 9,

wherein the gamma (γ)-correcting amplifies a signal of red.

15. (New) A device according to claim 9,

wherein the gamma (γ)-correcting attenuates a signal of blue or green.

16. (New) A device according to claim 9,

wherein the gamma (γ)-correcting is independently applied for each of signals of blue, green and red.

17. (New) A device according to claim 9,

wherein the EL element comprises a luminescent layer comprising a polymer organic material.

18. (New) A device according to claim 1, wherein the EL display device is used in an electronic device selected from the group consisting of an EL display, a video camera, a head mount type display, an image reproduction device comprising a recording medium, a portable computer, a personal computer, a portable telephone and a car audio equipment.

19. (New) An electronic device comprising:

an EL display device comprising:

a thin film transistor;

a pixel electrode being electrically connected to the thin film transistor;

an EL element with the pixel electrode as a cathode or an anode; and

an insulating layer for sealing the EL element;

a source driver circuit for applying an analog image signal to the EL element; and

a correction circuit for gamma (γ)-correcting the analog image signal.

20. (New) A device according to claim 19, further comprising:

a memory for storing data for the gamma (γ)-correcting.

21. (New) An EL display device of claim 19, wherein the EL display device is used in an electronic device selected from the group consisting of an EL display, a video camera, a head mount type display, an image reproduction device comprising a recording medium, a portable computer, a personal computer, a portable telephone and a car audio equipment.

22. (New) A device according to claim 19, further comprising:

a color filter being formed at a position corresponding to the pixel electrode.

23. (New) A device according to claim 19,

wherein the EL element comprises,

a first pixel comprising a blue luminescent layer,

a second pixel comprising a green luminescent layer, and
a third pixel comprising a red luminescent layer.

24. (New) A device according to claim 19,
wherein the gamma (γ)-correcting amplifies a signal of red.

25. (New) A device according to claim 19,
wherein the gamma (γ)-correcting attenuates a signal of blue or green.

26. (New) A device according to claim 19,
wherein the gamma (γ)-correcting is independently applied for each of signals of
blue, green and red.

27. (New) A device according to claim 19,
wherein the EL element comprises a luminescent layer comprising a polymer organic
material.

28. (New) An EL display device comprising:
a thin film transistor;
a pixel electrode being electrically connected to the thin film transistor;
an EL element with the pixel electrode as a cathode or an anode;
an insulating layer for sealing the EL element;
a source driver circuit for applying an analog image signal to the EL element; and
a correction circuit for gamma (γ)-correcting the analog image signal,

wherein the thin film transistor, the pixel electrode, the EL element, the insulating layer, the source driver circuit and the correction circuit are formed over a same substrate.

29. (New) A device according to claim 28, further comprising:

a memory for storing data for the gamma (γ)-correcting.

30. (New) An EL display device of claim 28, wherein the EL display device is used in an electronic device selected from the group consisting of an EL display, a video camera, a head mount type display, an image reproduction device comprising a recording medium, a portable computer, a personal computer, a portable telephone and a car audio equipment.

31. (New) A device according to claim 28, further comprising:

a color filter being formed at a position corresponding to the pixel electrode.

32. (New) A device according to claim 28,

wherein the EL element comprises,

a first pixel comprising a blue luminescent layer,

a second pixel comprising a green luminescent layer, and

a third pixel comprising a red luminescent layer.

33. (New) A device according to claim 28,

wherein the gamma (γ)-correcting amplifies a signal of red.

34. (New) A device according to claim 28,

wherein the gamma (γ)-correcting attenuates a signal of blue or green.

35. (New) A device according to claim 28,

wherein the gamma (γ)-correcting is independently applied for each of signals of blue, green and red.

36. (New) A device according to claim 28,

wherein the EL element comprises a luminescent layer comprising a polymer organic material.